

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) In a server computer system that provides Web pages to requesting client computer systems, the Web pages potentially including content from locations that are external to the server computer system, the server computer system including a cache that stores portions of cached content previously received from locations external to the server computer system, a method for ~~causing~~ determining the validity of a cache entry, the validity of which is ~~to be~~ dependent on a user-customized dependency, the method comprising the following:

an act of accessing an extensible cache dependency base class from which customized cache dependencies can be derived, the extensible cache dependency base class including a plurality of inheritable cache management methods usable by customized dependencies derived from the extensible case dependency base class to determine the validity of one or more cache entries corresponding to the customized dependencies;

an act of deriving a customized cache dependency class from the extensible cache dependency base class, the customized cache dependency class inheriting the plurality of inheritable cache management methods from the extensible ~~case~~ cache dependency base class, the customized cache dependency class also configured to implement further unique functionality of a customized dependency that extends the plurality of inheritable cache management methods included in the extensible cache dependency base class, the unique functionality including providing a user-customized basis for determining the validity of cache entries associated with the customized cache dependency;

an act of accessing a portion of cached content that is to be delivered to a client computer system;

an act of creating a cache entry that associates the customized dependency with the accessed portion of cached content, the customized dependency including the user-customized basis for determining cache entry validity; and

an act of determining that the cache entry is valid according to the user-
customized basis for determining cache entry validity; and

an act of inserting the determined valid cache entry into cache for delivery to the
client computer system such that the validity of the cache entry is dependent on the
customized dependency.

2. (Previously Presented) The method set forth in claim 1, wherein the act of accessing an extensible cache dependency base class comprises an act of accessing a cache dependency base class that includes a notify dependency changed method such that classes derived from the cache dependency base class can implement purging functionality of the cache dependency base class by calling the notify dependency changed method.

3. (Original) The method set forth in claim 1, wherein the act of accessing an extensible cache dependency base class comprises an act of accessing a cache dependency base class that includes a dependency dispose method such that classes derived from the cache dependency base class can release resources occupied by a cache entry by calling the dependency dispose method.

4. (Previously Presented) The method set forth in claim 1, wherein the act of deriving a customized cache dependency class from the extensible cache dependency base class comprises an act of deriving a customized cache dependency class that can be implemented to cause a cache entry to be dependent on a database table.

5. (Previously Presented) The method set forth in claim 1, wherein the act of deriving a customized cache dependency class from the extensible cache dependency base class comprises an act of deriving a customized cache dependency class that can be implemented to cause a cache entry to be dependent on a Web service.

6. (Original) The method as recited in claim 1, wherein the act of accessing a portion of content that is to be delivered to a client computer system comprises an act of accessing a portion of content that is to be included in a Web page.

7. (Original) The method as recited in claim 1, wherein the act of accessing a portion of content that is to be delivered to a client computer system comprises an act of accessing a portion of content from a database table.

8. (Original) The method as recited in claim 1, wherein the act of accessing a portion of content that is to be delivered to a client computer system comprises an act of accessing a portion of content from a Web service.

9. (Previously Presented) The method as recited in claim 1, wherein the act of creating a cache entry that associates the customized dependency with the accessed portion of content comprises an act of creating a cache entry that causes content from a database table to be dependent on the database table.

10. (Previously Presented) The method as recited in claim 1, wherein the act of creating a cache entry that associates the customized dependency with the accessed portion of content comprises an act of creating a cache entry that causes content from a database table to be dependent on an aggregate dependency.

11. (Previously Presented) The method as recited in claim 1, wherein the act of creating a cache entry that associates the customized dependency with the accessed portion of content comprises an act of creating a cache entry that causes content from a Web service to be dependent on the Web service.

12. (Original) The method as recited in claim 1, wherein the act of inserting the cache entry into cache such that the validity of the cache entry is dependent on the customized dependency comprises an act of inserting a cache entry that is dependent on a database table.

13. (Original) The method as recited in claim 1, wherein the act of inserting the cache entry into cache such that the validity of the cache entry is dependent on the customized dependency comprises an act of inserting a cache entry that is dependent on an aggregate dependency.

14. (Cancelled).

15. (Currently Amended) In a server computer system that provides Web pages to requesting client computer systems, the Web pages potentially including content from locations that are external to the server computer system, the server computer system including a cache that stores portions of cached content previously received from locations external to the server computer system, a method for purging an invalid cache entry, the method comprising the following:

an act of monitoring one or more custom dependency conditions associated with a user-customized basis for determining validity of cache entries, the user-customized basis for determining validity of cache entries being included in an instance of a customized cache dependency that extends a plurality of cache management methods inherited from an extensible cache dependency base class to implement unique functionality, the customized cache dependency corresponding to a customized cache dependency class that was derived from the extensible cache dependency base class, wherein the customized cache dependency includes the user-customized basis for determining cache entry validity;

an act of determining if the one or more custom dependency conditions have been satisfied;

an act of receiving an indication that the one or more custom dependency conditions have been satisfied; and

an act of determining that the cache entry associated with the custom dependency conditions is invalid according to the user-customized basis for determining cache entry validity; and

an act of purging a the cache entry at the server computer system in response to determining that the cache entry is invalid ~~receiving the indication that the one or more custom dependency conditions have been satisfied.~~

16. (Original) The method as recited in claim 15, wherein the act of monitoring one or more custom dependency conditions associated with an instance of a customized cache dependency comprises an act of monitoring a database table dependency.

17. (Original) The method as recited in claim 15, wherein the act of monitoring one or more custom dependency conditions associated with an instance of a customized cache dependency comprises an act of monitoring a Web services dependency.

18. (Original) The method as recited in claim 15, wherein the act of monitoring one or more custom dependency conditions associated with an instance of a customized cache dependency comprises an act of monitoring an aggregate dependency.

19. (Previously Presented) The method as recited in claim 15, wherein the act of determining if the one or more custom dependency conditions have been be satisfied comprises an act of determining if a flag entry has been incremented.

20. (Previously Presented) The method as recited in claim 15, wherein the act of determining if the one or more custom dependency conditions have been satisfied comprises an act of determining if a dependency condition associated with an aggregate dependency has been satisfied.

21. (Previously Presented) The method as recited in claim 15, wherein the act of determining if the one or more custom dependency conditions have been satisfied comprises calling a notify dependency changed method upon the happening of some event specified by an instance of a customized cache dependency class.

22. (Previously Presented) The method as recited in claim 15, wherein the act of receiving an indication that the one or more custom dependency conditions have been satisfied comprises an act of receiving an indication from a notify dependency changed method that the one or more custom dependency conditions have been satisfied.

23-27 (Cancelled).

28. (Currently Amended) A computer program product for use in a server computer system that provides Web pages to requesting client computer systems, the Web pages potentially including content from locations that are external to the server computer system, the server computer system including a cache that stores portions of cached content previously received from locations external to the server computer system, the computer program product for implementing a method for causing determining the validity of a cache entry, the validity of which is to be dependent on a user-customized dependency, the computer program product comprising one or more computer-readable storage media having stored thereon computer executable instructions that, when executed by a processor, cause the server computer system to perform the following:

access an extensible cache dependency base class from which customized cache dependencies can be derived, the extensible cache dependency base class including a plurality of inheritable cache management methods usable by customized dependencies derived from the extensible case dependency base class to determine the validity of one or more cache entries corresponding to the customized dependencies;

derive a customized cache dependency class from the extensible cache dependency base class, the customized cache dependency class inheriting the plurality of inheritable cache management methods from the extensible ~~case~~ cache dependency base class, the customized cache dependency class also configured to implement further unique functionality of a customized dependency that extends the plurality of inheritable cache management methods included in the extensible cache dependency base class, the unique functionality including providing a user-customized basis for determining the validity of cache entries associated with the customized cache dependency;

access a portion of cached content that is to be delivered to a client computer system;

create a cache entry that associates the customized dependency with the accessed portion of cached content, the customized dependency including the user-customized basis for determining cache entry validity; and

determine that the cache entry is valid according to the user-customized basis for determining cache entry validity; and

insert the determined valid cache entry into cache for delivery to the client computer system such that the validity of the cache entry is dependent on the customized dependency.

29. (Currently Amended) A computer program product for use in a server computer system that provides Web pages to requesting client computer systems, the Web pages potentially including content from locations that are external to the server computer system, the server computer system including a cache that stores portions of cached content previously received from locations external to the server computer system, the computer program product for implementing a method for purging an invalid cache entry, the computer program product comprising one or more computer-readable storage media having stored thereon computer executable instructions that, when executed by a processor, cause the server computer system to perform the following:

monitor one or more custom dependency conditions associated with a user-customized basis for determining validity of cache entries, the user-customized basis for determining validity of cache entries being included in an instance of a customized cache dependency that extends a plurality of cache management methods inherited from an extensible cache dependency base class to implement unique functionality, the customized cache dependency corresponding to a customized cache dependency class that was derived from the extensible cache dependency base class, wherein the customized cache dependency includes the user-customized basis for determining cache entry validity;

determine if the one or more custom dependency conditions have been satisfied;
receive an indication that the one or more custom dependency conditions have been satisfied; and

determine that the cache entry associated with the custom dependency conditions is invalid according to the user-customized basis for determining cache entry validity;
and

purge a the cache entry at the server computer system in response to determining that the cache entry is invalid receiving the indication that the one or more custom dependency conditions have been satisfied.

30. (Cancelled).

31. (New) In a server computer system that provides Web pages to requesting client computer systems, the Web pages potentially including content from locations that are external to the server computer system, the server computer system including a cache that stores portions of cached content previously received from locations external to the server computer system, a method for determining the validity of a cache entry, the validity of which is dependent on a user-customized dependency, the method comprising the following:

- an act of accessing an extensible cache dependency base class from which customized cache dependencies can be derived, the extensible cache dependency base class including a plurality of inheritable cache management methods usable by customized dependencies derived from the extensible case dependency base class to determine the validity of one or more cache entries corresponding to the customized dependencies;

- an act of deriving a customized cache dependency class from the extensible cache dependency base class, the customized cache dependency class inheriting the plurality of inheritable cache management methods from the extensible cache dependency base class, the customized cache dependency class also configured to implement further unique functionality of a customized dependency that extends the plurality of inheritable cache management methods included in the extensible cache dependency base class, the unique functionality including providing a user-customized basis for determining the validity of cache entries associated with the customized cache dependency, the user-customized basis including a selectable set of elements on which validity of the cache entries can depend;

- an act of accessing a portion of cached content that is to be delivered to a client computer system;

- an act of creating a cache entry that associates the customized dependency with the accessed portion of cached content, the customized dependency including the user-customized basis for determining cache entry validity;

- an act of determining that the cache entry is valid according to the user-customized basis for determining cache entry validity; and

an act of inserting the determined valid cache entry into cache for delivery to the client computer system.

32. (New) The method of claim 31, wherein the selectable set of elements on which validity of the cache entries can depend comprises one or more of the following: web service element, a database table element, a local file change, a dependency derived from the extensible cache dependency base class, a notification flag, and a software application.

33. (New) The method of claim 1, wherein the functionality of the customized cache dependencies override any functionality of the extensible cache dependency base class.

34. (New) The method of claim 1, wherein the functionality of the customized cache dependencies selectively override one or more portions of functionality of the extensible cache dependency base class.

35. (New) The method of claim 1, wherein the customized cache dependency is dependent on both a file and a database table.

36. (New) The method of claim 1, wherein the unique functionality comprises being notified when a database query changes.

37. (New) The method of claim 1, wherein the customized cache dependency is dependent on another dependency.